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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,424	07/03/2001	Donald C. Young	05331.00002	1930

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EXAMINER

SAYALA, CHHAYA D

ART UNIT	PAPER NUMBER
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1761

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DATE MAILED: 02/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/898,424

Applicant(s)

YOUNG, DONALD C.

Examiner

C. SAYALA

Art Unit

1761

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3 & 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## **DETAILED ACTION**

### ***Specification***

1. The disclosure is objected to because of the following informalities: Lines 3-5 at page 3 should be revised. The patent numbers do not correspond to any patents in the relevant art (fertilizers).

Appropriate correction is required.

### ***Information Disclosure Statement***

2. The reference listed at page 3, lines 3-5, namely, the article from 'Fertilizer Research' should be listed on a PTO-form 1449 and a copy submitted to the Office for consideration for examination purposes.

### ***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

"Nominal composition" is not defined in the specification and it is not an art term (phrase) and should be changed to - - N-P-K composition- -, which terms are well known in the art.

### ***Claim Rejections - 35 USC § 102***

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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6. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Hsu (US Patent 5865870).

Hsu teaches a combination of ammonium phosphite with ammonium polyphosphate or phosphate. The desired pH range is between 5.0-7.5. See col. 2, line 65 and col. 3, line 4 and claims 1 and 2. The ratio of the compounds is given as ranging from 1:20 to 20:1. \*

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8-16, 21-30, 32-43  
8. Claims 4-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US Patent 5865870) and Taylor (US Patent 5800837).

Hsu's patent is as discussed above. The reference does not teach mixing water into the ammonium salts of phosphorus or phosphoric acids. But 1) it teaches diluting the concentrate that contains the same ammonium salts (claim 4) and 2) teaches

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adding water to the acids, not the salts, (see examples). It would have been obvious to one of ordinary skill in the art at the time the invention is made to add water to the salts just as the reference teaches adding water to the salts in making the fertilizer solution, because the reference teaches that the acid or its salts are useful as fertilizers for the same purpose.

The patent does not teach amounts as claimed. However, since Hsu teaches a mixture of ammonium phosphite and ammonium polyphosphate or phosphate also, and the ratio shown therein encompasses those claimed, then per cent amounts of N and P must also be the same or similar, even though the reference does not show such amounts per se. What is important is that Hsu teaches that the combination claimed herein is said to have a synergistic effect on plant growth (col. 7, lines 53-56) and this is motivation enough not only to make such a combination but to optimize within the range shown, as needed. As for the N-P-K values, it is well known that such amounts can be adjusted as required by plants, as different plants have different N-P-K requirements.

With respect to the orthophosphate of claim 10 or 17 or 19, Taylor teaches a mixture of orthophosphoric acid and ammonium phosphite, (see col. 8, lines 20-55), as being beneficial for plant growth response and in controlling fungal disease. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ammonium salts of the orthophosphoric acid, since ammonia is a good source of necessary nitrogen as a fertilizer component.

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9. Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hsu (US Patent 5865870) in view of Sheppardson et al. (US 2002/0129632) and RU 2121990.

Hsu is as discussed above but Hsu does not teach ammonium nitrate. Sheppardson et al teach an aqueous fertilizer suspension which is a mixture of phosphorus acid or salt and phosphoric acid or salt. See claims 8 and 9. The reference also teaches adding ammonium nitrate as a nitrogen source, see claims 13 and 14. The RU patent also teaches mixing a phosphorus containing component as ammonium phosphite and phosphate and ammonium nitrate as a nitrogen containing component. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide ammonium nitrate as a nitrogen source, in the Hsu composition, in addition to a phosphorous source as well.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to C. SAYALA at Group 1761, telephone number (703) 308-3035.

The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3599.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is 703-308-0661

  
C. SAYALA  
Primary Examiner  
Group 1700.